

CLAIMS

1. A manufacturing process of a stainless steel product by nitrogen absorption treatment, comprising the steps of bringing a bulk product of ferritic stainless steel made by melting, forming and machining into a desired shape, into contact with an inert gas containing nitrogen at or above 800°C, and austenitizing the product completely, or austenitizing the product partially to form a two-phase structure composed of ferrite and austenite.

2. A stainless steel product having a completely austenitic structure formed by adding nitrogen through contact with an inert gas containing nitrogen, to a bulk product of ferritic stainless steel made by melting, forming and machining into a desired shape.

3. A stainless steel product having a two-phase structure composed of ferrite and austenite, which is produced by adding nitrogen through contact with an inert gas containing nitrogen to a bulk product of ferritic stainless steel made by melting, forming and machining into a desired shape so as to austenitize the product partially.